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10/620,730	07/16/2003	Miska M. Hannuksela	061492-0220	9027

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FOLEY & LARDNER LLP
P.O. BOX 80278
SAN DIEGO, CA 92138-0278

EXAMINER

SENGI, BEHROOZ M

ART UNIT	PAPER NUMBER
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2621

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08/03/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/620,730	Applicant(s) HANNUKSELA, MISKA M.	
	Examiner BEHROOZ SENFI	Art Unit 2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 April 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 9-20 and 22-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 9-20 and 22-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 July 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. Applicant's arguments filed 4/28/2010 have been fully considered but they are not persuasive. Please see response to remarks.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 9-19, 23-24 and 26-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sullivan (US 2003/0156640) in view of Tranchard (US 5,680,483).

Regarding claim 15, Sullivan discloses, a method of encoding a video sequence (i.e., figs. 1-3) comprising; encoding into an encoded bit-stream by a video encoder, a first indication corresponding to an intra coded picture (encoded bit-stream with first indication, e.g., I picture, indicating intra coded picture as shown in figs. 1-3, page 1, paragraphs 0010-0011 and 0016, page 2, paragraph 0021), the first indication indicating whether or not at least a part of at least one picture is encoded with reference to a picture preceding the intra coded picture in encoding order (i.e., the arrows as shown in fig. 1, indicates picture encoding with reference to another picture e.g., picture preceding the intra coded picture, in encoding order, page 2, paragraph 0021), the at least one picture having an

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encoding order succeeding the intra coded picture (i.e., figs. 1-3, shows one picture having an encoding order succeeding the intra coded picture, e.g., P/B picture shown in figs. 1-3, consider as one picture succeeding the intra coded picture, page 2, paragraphs 0018 and 0021), and performing prediction by the video encoder for a second picture with reference to the at least one picture (i.e., page 1, paragraphs 0004-0010 and 0039-0043, picture P, predictive coded picture constitute a second type of picture which are predicted by motion compensation (MPEG-2) based on the preceding and/or possibly subsequent picture).

Although Sullivan discloses, picture P, predictive coded picture constitute a second type of picture (i.e., page 1, paragraphs 0005-0010 and 0039-0043). Sullivan is silent in regards to explicit of, performing motion compensated prediction, as specifies in the claim.

However, such limitations using/performing motion compensated prediction with reference to the at least one picture are notoriously well known in MPEG video encoding/decoding, as evidenced by Tranchard (i.e., col. 3, lines 25-35 and cols. 7-8, lines 66-32).

In view of the above, it would have been obvious to one having ordinary skill in the art at the time of the invention was made to implement such teachings to improve the coding method by modifying the video bit-rate and switch the bit-rate without any interruption, as suggested by Tranchard (i.e., col. 2, lines 20-30).

Regarding claims 9-10, the limitations claimed are substantially similar to claim 15 above; therefore the ground for rejecting claim 15 also applies here.

Regarding claim 11, the combination of Sullivan and Tranchard teaches, indication is provided in network abstraction layer unit-type syntax (Sullivan; page 3, paragraph 0038).

Regarding claim 12, the combination of Sullivan and Tranchard teaches, wherein the indication is retrieved from a picture header (Tranchard; col. 8, lines 35–37 and lines 49-51).

Regarding claim 13, the combination of Sullivan and Tranchard teaches, wherein the indication is retrieved from a slice header (Tranchard; col. 8, lines 47-52).

Regarding claim 14, the combination of Sullivan and Tranchard teaches, random access point using a sub-sequence identifier (Sullivan; figs. 5 and 8).

Regarding claim 16, the combination of Sullivan and Tranchard teaches, a method according to claim 15, wherein the first indication is provided in NAL “network abstraction layer” unit-type syntax (Sullivan; page 3, paragraph 0038).

Regarding claim 17, the combination of Sullivan and Tranchard teaches, a method according to claim 15, wherein the first indication is provided in a picture header (Tranchard; col. 8, lines 35–37 and lines 49-51, indicating header indicating picture type and additional information).

Regarding claim 18, the combination of Sullivan and Tranchard teaches, a method according to claim 15, wherein the first indication is provided in a slice header (Tranchard; col. 8, lines 47-52, indication is provided in a slice header).

Regarding claim 19, the combination of Sullivan and Tranchard teaches, random access point (Sullivan; fig. 5, indication of random access).

Regarding claim 23, Sullivan is silent in regards to explicit of, wherein the indication is retrieved from a picture header.

Tranchard (i.e., col. 8, lines 35–37 and lines 49-51) teaches wherein the indication is retrieved from a picture header.

In view of the above, it would have been obvious to one having ordinary skill in the art at the time of the invention was made to implement such teaching, in order to improve the coding method, as suggested by Tranchard (i.e., col. 2, lines 20-30).

Regarding claim 24, the combination of Sullivan and Tranchard teaches, wherein the indication is retrieved from a slice header (Tranchard; col. 8, lines 47-52).

Regarding claims 26 and 32, the limitations claimed are substantially similar to claim 15 and are the decoding process of the encoded bit-stream, therefore the ground for rejecting claim 15 also applies here. As for the decoding process (please see Sullivan; page 2, paragraphs 0021, 0025 and page 3, paragraphs 0041-0042).

Regarding claims 27-28 and 33, the combination of Sullivan and Tranchard teaches, discarding and continuing the decoding process (Sullivan; fig. 7, best efforts decoding and assured decoding, page 6, paragraphs 0077-0080), and NAL unit type syntax (Sullivan, page 3, paragraph 0038).

Regarding claim 31, the combination of Sullivan and Tranchard teaches, random access location is determined by examining sub-sequence identifiers for encoded pictures (Sullivan; figs. 5 and 8).

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Regarding claims 29-30, the limitations claimed have been addressed in claims 12-13 above.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 20, 22 and 25 are rejected under 35 U.S.C. 102(e) as being anticipated by Sullivan (US 2003/0156640).

Regarding claim 20, Sullivan discloses, a method of decoding an encoded bit-stream comprising, retrieving by a video decoder from the encoded bit-stream a first indication corresponding to an intra-coded picture (i.e., figs. 1-3 and 7, page 1, paragraph 0011, page 2, paragraph 0021 and page 6, paragraphs 0083-0084), the first indication indicating that all decoded coded pictures at and subsequent to the intra-coded picture can be correctly decoded when a decoding process is started from the intra-coded picture (i.e., fig. 7, page 2, paragraph 0021, page 6, paragraphs 0078-0080) and based on the decoded first indication decoding the encoded bit-stream, the decoding starting from the intra coded picture and subsequent pictures in display order (i.e., page 2, paragraphs 0021, 0025 and page 3, paragraphs 0041-0042), decoding from the encoded bit-stream

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a second indication corresponding to a first coded picture ... (i.e., paragraphs 0021 and 0073-0083), discarding the first coded picture without decoding and continuing the decoding process with the encoded pictures succeeding the first coded picture (i.e., paragraphs 0021 and 0073-0083).

Regarding claim 22, the combination of applicant admitted prior art and Sullivan teaches, a method according to claim 20, wherein the indication is retrieved from “NAL network abstraction layer unit-type syntax” (Sullivan, page 3, paragraph 0038).

Regarding claim 25, the limitations claimed are substantially similar to claim 20 above; therefore the ground for rejecting claim 20 also applies here.

Response to Remarks:

Applicant (remarks; pages 11-12) mainly asserts that Sullivan fails to teach or suggest the various features that are recited in claim 15, in particular “a first indication” and “performing motion compensated prediction” as recited in the claimed.

With respect to applicant’s argument; examiner indicates that, Sullivan teaches (i.e., page 2, paragraph 0021) teaches encoder indicates whether any subsequent/succeeding picture refer to a picture previous/preceding to the I-picture, thus is equivalent to the claim, and also teaches performing prediction by the video encoder for a second picture with reference to the at least one picture (i.e., page 1, paragraphs 0004-0010 and 0039-0043, picture P, predictive coded picture constitute a second type of picture which are predicted by motion compensation (MPEG-2) based on the preceding and/or possibly subsequent

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picture), to more clearly show “performing motion compensated prediction step”, examiner relied on the secondary reference, Tranchard (i.e., col. 3, lines 25-35 and cols. 7-8, lines 66-32) for the motion compensated prediction steps, as claimed.

With respect to applicant’s argument, regarding decoding from the encoded bit-stream a second indication ..., remarks; pages 8-9); Examiner indicates that, Sullivan teaches mechanisms that assist decoding process by retrieving indicator, provided by the video encoder, from the encoded bit-stream, to correctly start the decoding process, thus encompasses the above claimed features, please see; paragraphs 0021 and 0072-0083 of Sullivan.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Behrooz Senfi whose telephone number is 571-272-7339. The examiner can normally be reached on M-F 7:00-3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mehrdad Dastouri can be reached on 571-272-7418. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Behrooz Senfi/
Primary Examiner
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